



# NATURAL GAS ANALYSIS

PRIMARY DB KEY: NAME/DESCRIP: **BETTY No 1-15**  
LEASE #: SALES GAS  
FIELD/ AREA:  
PROJECT NO.: **202001051** ANALYSIS NO.: **05**  
COMPANY NAME: **GRAND MESA OPERATING** ANALYSIS DATE: **JANUARY 13, 2020 10:30**  
OFFICE / BRANCH: **WICHITA, KS** SAMPLE DATE: **JANUARY 8, 2020**  
CUSTOMER REF: TO:  
PRODUCER: EFFECTIVE DATE:

## \*\*\*FIELD DATA\*\*\*

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**  
SAMPLE PRES.: **35** psig PROBE: **NO**  
FLOW PRES.: psig CYLINDER NO.: **0571**  
LAB PRES: psig SAMPLED BY: **GALE MCENDREE**  
SAMPLE TEMP.: **55** °f SAMPLING COMPANY: **EMPACT**  
AMBIENT TEMP.: °f H2S BY STAIN TUBE: **1** ppm  
H2O BY STAIN TUBE: #/mmcf CO2 BY STAIN TUBE: Mol %  
FIELD COMMENTS:  
LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.73	GPM @ 14.65
HELIUM	0.27	-	-
HYDROGEN	0.01	-	-
OXYGEN/ARGON	0.12	-	-
NITROGEN	20.26	-	-
CO2	2.91	-	-
METHANE	46.32	-	-
ETHANE	12.11	3.2508	3.2331
PROPANE	11.28	3.1199	3.1030
ISOBUTANE	1.19	0.3905	0.3884
N-BUTANE	3.45	1.0920	1.0860
ISOPENTANE	0.60	0.2204	0.2192
N-PENTANE	0.71	0.2587	0.2572
HEXANES+	0.77	0.3351	0.3333
TOTAL	100.00	8.6674	8.6202
BTU @ 60 DEG F		14.73	14.65
GROSS DRY REAL =		1216.7 /scf	1210.1 /scf
GROSS SATURATED REAL =		1195.5 /scf	1188.9 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)		0.9463	
GRAVITY (LB/SCF)		0.07222	
COMPRESSIBILITY FACTOR :		0.99591	

NOTE: REFERENCE GPA 2261(ASTM D1945 & ASME-PTC), 2145, & 2172 CURRENT PUBLICATIONS

Reference: Per GPA 2172-14 sec 9

The C6+ is derived from the following ratios of C6, C7 & C8+ respectively: 60% 30% 10%

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